SAFETY DATA SHEET

BUTANOX P-50

Version 0 Revision Date 00/00/0000 Print Date 04/23/2015 US / Z8

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : BUTANOX P-50

Product Use Description : Curing agent

Company :

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Telephone :
Fax :
E-mail address :
Emergency telephone :

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Color	clear, colorless
Odor	faint

GHS Classification

Organic peroxides, Type F
Skin corrosion, Category 1B
Serious eye damage, Category 1
Skin sensitization, Category 1
Acute aquatic toxicity, Category 3
Chronic aquatic toxicity, Category 3

GHS Label element

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H242 Heating may cause a fire.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P220 Keep away from dirt, rust, chemicals in particular.
P234 Keep only in original container.
P261 Avoid breathing mist, vapours or spray.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/ physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P410 Protect from sunlight.
P420 Store away from other materials.
Disposal:
P501 Dispose of contents/container in accordance with local regulation.

Potential Health Effects

Inhalation : Inhalation of aerosols may cause irritation to mucous membranes.
Thermal decomposition can lead to release of irritating gases and vapors.

Skin : Symptoms may be delayed.
May cause an allergic skin reaction.
Causes severe skin burns.

Eyes : Causes serious eye damage.

Ingestion : Causes burns.
May be harmful if swallowed.

Aggravated Medical Condition : None known.

Symptoms of Overexposure : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

Carcinogenicity:

IARC	:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Dimethyl phthalate	131-11-3	Aquatic Acute 3; H402	70 - 90
1,2-Dimethylpropylidene dihydroperoxide	13921-99-8	Org. Perox. F; H242 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 2; H401 Aquatic Chronic 2; H411	20 - 30
methyl isopropyl ketone peroxide	33372-83-7	Org. Perox. A; H240 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 2; H401 Aquatic Chronic 2; H411	1 - 5
3-Methyl-2-butanone	563-80-4	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT SE 3; H336 Aquatic Acute 3; H402	1 - 5

Methyl isopropyl ketone peroxide 11-35% solution in dimethyl phthalate

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice : Immediate medical attention is required.
Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.

Inhalation : If breathed in, move person into fresh air.
Consult a physician after significant exposure.

Skin contact : Take off contaminated clothing and shoes immediately.
Rinse immediately with plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If skin irritation persists, call a physician.

Eye contact : Rinse with plenty of water.
Get medical attention immediately. Continue to rinse during

transport of patient.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

Ingestion : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.
Do not induce vomiting! May cause chemical burns in mouth and throat.

Notes to physician

Symptoms : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

Treatment : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards during fire fighting / Specific hazards arising from the chemical : CAUTION: reignition may occur.
Supports combustion.
Water spray may be ineffective unless used by experienced firefighters.
Do not allow run-off from fire fighting to enter drains or water courses.
Heating may cause decomposition with release of toxic fumes.

Combustion products : Fire will produce smoke containing hazardous combustion products (see section 10).

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Use water spray to cool unopened containers.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

See also Section 9. Physical and chemical properties: Safety data

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods for cleaning up / Methods for containment	:	Keep wetted with water. Soak up with inert absorbent material and dispose of as hazardous waste. Confinement must be avoided. Never return spills in original containers for re-use.
Additional advice	:	For personal protection see section 8.

7. HANDLING AND STORAGE

Handling

Advice on safe handling	:	For personal protection see section 8. Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	:	Use explosion protected equipment. Keep away from sources of ignition - No smoking. No sparking tools should be used. Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps). Do not cut or weld on or near this container even when empty. Keep away from combustible material.
Temperature class	:	It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded.

Storage

Requirements for storage areas and containers	:	No smoking. Electrical installations / working materials must comply with the technological safety standards. Keep only in original container. Store away from other materials.
Minimum storage temperature:	:	Avoid temperatures below: -10 °C (14 °F)
Maximum storage temperature:	:	25 °C (77 °F)
Other data	:	If product freezes or separates, contact Akzo Nobel
	:	No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
Dimethyl phthalate	131-11-3	TWA	5 mg/m3	2013-03-01	ACGIH	
	Further information	:	Upper Respiratory Tract irritation Eye irritation			
		TWA	5 mg/m3	2013-10-08	NIOSH REL	
		TWA	5 mg/m3	1997-08-04	OSHA Z-1	
		TWA	5 mg/m3	1989-01-19	OSHA P0	
		TWA	5 mg/m3	2007-01-01	ACGIH	
	Further information	:	Eye & Upper Respiratory Tract irritation			
		TWA	5 mg/m3	2005-09-01	NIOSH REL	
		TWA	5 mg/m3	1997-08-04	OSHA Z-1	
		TWA	5 mg/m3	1989-01-19	OSHA P0	
3-Methyl-2-butanone	563-80-4	TWA	20 ppm	2013-03-01	ACGIH	
	Further information	:	Neonatal toxicity Embryo/fetal damage			
		TWA	200 ppm 705 mg/m3	2013-10-08	NIOSH REL	
		TWA	200 ppm 705 mg/m3	1989-01-19	OSHA P0	

STEL: Short term exposure limit
TWA: Time Weighted Average

Hazardous components without workplace control parameters

Occupational exposure limits of decomposition products

Decomposition products	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
2-Propanol	67-63-0, 67-63-0	TWA	200 ppm	2013-03-01	ACGIH	
	Further information	:	Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation BEI: Substances for which there is a Biological Exposure Index or Indices (see BEI® section) A4: Not classifiable as a human carcinogen			
		STEL	400 ppm	2013-03-01	ACGIH	
	Further information	:	Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation BEI: Substances for which there is a Biological Exposure Index or Indices (see BEI® section) A4: Not classifiable as a human carcinogen			
		TWA	400 ppm 980 mg/m3	2013-10-08	NIOSH REL	
		ST	500 ppm 1,225 mg/m3	2013-10-08	NIOSH REL	
		TWA	400 ppm 980 mg/m3	1997-08-04	OSHA Z-1	
	Further information	:	(b): The value in mg/m3 is approximate.			
		TWA	400 ppm 980 mg/m3	1989-01-19	OSHA P0	

		STEL	500 ppm 1,225 mg/m3	1989-01-19	OSHA P0	
Acetic acid	64-19-7, 64-19-7	TWA	10 ppm	2013-03-01	ACGIH	
	Further information	:	Pulmonary function Upper Respiratory Tract irritation Eye irritation			
		STEL	15 ppm	2013-03-01	ACGIH	
	Further information	:	Pulmonary function Upper Respiratory Tract irritation Eye irritation			
		TWA	10 ppm 25 mg/m3	2013-10-08	NIOSH REL	
	Further information	:	Can be found in concentrations of 5-8% in vinegar			
		ST	15 ppm 37 mg/m3	2013-10-08	NIOSH REL	
	Further information	:	Can be found in concentrations of 5-8% in vinegar			
		TWA	10 ppm 25 mg/m3	1997-08-04	OSHA Z-1	
	Further information	:	(b): The value in mg/m3 is approximate.			
		TWA	10 ppm 25 mg/m3	1989-01-19	OSHA P0	
3-Methyl-2-butanone, 3-Methyl-2-butanone	563-80-4, 563-80-4	TWA	20 ppm	2013-03-01	ACGIH	
	Further information	:	Neonatal toxicity Embryo/fetal damage			
		TWA	200 ppm 705 mg/m3	2013-10-08	NIOSH REL	
		TWA	200 ppm 705 mg/m3	1989-01-19	OSHA P0	
Acetone	67-64-1, 67-64-1	TWA	500 ppm	2013-03-01	ACGIH	
	Further information	:	Central Nervous System impairment Hematologic effects Upper Respiratory Tract irritation Eye irritation (): Adopted values or notations enclosed are those for which changes are proposed in the NIC See Notice of Intended Changes (NIC) BEI: Substances for which there is a Biological Exposure Index or Indices (see BEI® section) A4: Not classifiable as a human carcinogen			
		STEL	750 ppm	2013-03-01	ACGIH	
	Further information	:	Central Nervous System impairment Hematologic effects Upper Respiratory Tract irritation Eye irritation (): Adopted values or notations enclosed are those for which changes are proposed in the NIC See Notice of Intended Changes (NIC) BEI: Substances for which there is a Biological Exposure Index or Indices (see BEI® section) A4: Not classifiable as a human carcinogen			
		TWA	250 ppm 590 mg/m3	2013-10-08	NIOSH REL	
		TWA	1,000 ppm 2,400 mg/m3	1997-08-04	OSHA Z-1	
	Further information	:	(b): The value in mg/m3 is approximate.			
		TWA	750 ppm 1,800 mg/m3	1989-01-19	OSHA P0	
		STEL	1,000 ppm 2,400 mg/m3	1989-01-19	OSHA P0	
	Further information	:	h: The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors.			

Propane	74-98-6	TWA	1,000 ppm 1,800 mg/m3	2013-10-08	NIOSH REL	
		TWA	1,000 ppm 1,800 mg/m3	1997-08-04	OSHA Z-1	
	Further information	:	(b): The value in mg/m3 is approximate.			
		TWA	1,000 ppm 1,800 mg/m3	1989-01-19	OSHA P0	
	Further information	:	See Appendix F: Minimal Oxygen Content Asphyxia			
Acetic acid, 1-methylethyl ester, Acetic acid, 1-methylethyl ester	108-21-4, 108-21-4	TWA	100 ppm	2013-03-01	ACGIH	
	Further information	:	Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation			
		STEL	200 ppm	2013-03-01	ACGIH	
	Further information	:	Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation			
	Further information	:	See Appendix D - Substances with No Established RELs			
		TWA	250 ppm 950 mg/m3	1997-08-04	OSHA Z-1	
	Further information	:	(b): The value in mg/m3 is approximate.			
		TWA	250 ppm 950 mg/m3	1989-01-19	OSHA P0	
		STEL	310 ppm 1,185 mg/m3	1989-01-19	OSHA P0	

Engineering measures
Explosion proof ventilation recommended.
Effective exhaust ventilation system
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection : Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection : Glove material: butyl-rubber

: Glove material: Neoprene

Skin and body protection : Protective suit

Respiratory protection : In the case of vapor or aerosol formation use a respirator with an approved filter.
Filter A

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.
Wash contaminated clothing before re-use.

Environmental exposure controls

General advice : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform

respective authorities.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	:	liquid
Color	:	clear colorless
Odor	:	faint
Odor Threshold	:	No data available

Safety data

pH	:	Weakly acidic
Melting point	:	-10 °C
Boiling point/boiling range	:	Decomposes below the boiling point.
Flash point	:	Above the SADT value
Evaporation rate	:	No data available
Flammability (solid, gas)	:	
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available
Vapor pressure	:	7.6 hPa at 20 °C
Relative vapor density	:	No data available
Relative density	:	1.157 at 20 °C
Bulk density	:	Not applicable
Water solubility	:	at 20 °C partly miscible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	Test method not applicable
Decomposition temperature	:	SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.

Self-Accelerating decomposition temperature (SADT)	:	50 °C
Viscosity, dynamic	:	20 mPa.s at 20 °C
Viscosity, kinematic	:	17.29 mm2/s at 20 °C
Explosive properties	:	Not explosive
Oxidizing properties	:	Not classified as oxidizing.
Active Oxygen Content	:	6.5 %
Organic peroxides	:	24 - 26 %

This material safety datasheet only contains information relating to safety and does not replace any product information or product specification.

10. STABILITY AND REACTIVITY

Conditions to avoid	:	A high degree of confinement must be avoided. Heat, flames and sparks. For safety, store below: 25 °C (77 °F)
Materials to avoid	:	Contact with incompatible materials will result in hazardous decomposition. For queries regarding the suitability of other materials please contact the supplier. Do not mix with peroxide accelerators, unless under controlled processing. Use only stainless steel 316, PP, polyethylene or glass-lined equipment. Acids and bases Iron Copper Reducing agents Heavy metals Rust
Hazardous decomposition products	:	Carbon oxides 2-Propanol Acetic acid 3-Methyl-2-butanone Acetone Propane Acetic acid, 1-methylethyl ester Hydrocarbons

Thermal decomposition	:	SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.
Reactivity	:	Stable under normal conditions.
Chemical stability	:	Stable under recommended storage conditions.
Hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Self-Accelerating decomposition temperature (SADT)	:	50 °C (122 °F)

11. TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION:

Toxicology Assessment

Further information : No further data available.

Test result

Acute oral toxicity : Acute toxicity estimate: 2,256 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : > 40 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Carcinogenicity:

IARC : No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Component: Dimethyl phthalate

Further information : No further data available.

Component: Dimethyl phthalate

Acute oral toxicity : LD50: > 5,000 mg/kg
Species: Rat

Acute inhalation toxicity : Assessment: The substance or mixture has no acute

inhalation toxicity

Skin irritation : Result: slight irritation

Eye irritation : Result: Slightly irritating to eyes.

Aspiration toxicity : No aspiration toxicity classification

Component: 1,2-Dimethylpropylidene dihydroperoxide

Acute oral toxicity : LD50: > 300 - 2,000 mg/kg
Species: Rat

Skin irritation : Result: Causes burns.

Eye irritation : Result: Risk of serious damage to eyes.

Target Organ Systemic Toxicant - Repeated exposure : Routes of exposure: Ingestion
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity : No aspiration toxicity classification

Component: methyl isopropyl ketone peroxide

Acute oral toxicity : LD50: > 300 - 2,000 mg/kg
Species: Rat

Skin irritation : Result: Causes burns.

Eye irritation : Result: Risk of serious damage to eyes.

Routes of exposure: Ingestion
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity : No aspiration toxicity classification

Component: 3-Methyl-2-butanone

Acute oral toxicity : LD50: 3,078 mg/kg
Species: Rat

Acute inhalation toxicity : LC50 (Rat): 6377 ppm
Assessment: The component/mixture is moderately toxic after short term inhalation.

Repeated dose toxicity : Species: Rat
Application Route: Inhalation
Number of exposures: 90

Target Organ Systemic Toxicant - Single exposure : May cause drowsiness or dizziness.

Aspiration toxicity : No aspiration toxicity classification

12. ECOLOGICAL INFORMATION

PRODUCT INFORMATION:

Ecotoxicology Assessment

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

Further information on ecology

Hazardous to the ozone layer

Regulation : 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Component: Dimethyl phthalate

Acute aquatic toxicity : Harmful to aquatic life.

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life.

Component: 1,2-Dimethylpropylidene dihydroperoxide

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Component: methyl isopropyl ketone peroxide

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Component: 3-Methyl-2-butanone

Acute aquatic toxicity : Harmful to aquatic life.

Component: Dimethyl phthalate

Ecotoxicity effects

Toxicity to fish : LC50: 420 mg/l
Exposure time: 96 h
Species: Lepomis macrochirus (Bluegill sunfish)

Toxicity to algae : EC10: 193.09 mg/l
Exposure time: 72 h
Species: Desmodesmus subspicatus (green algae)
Test Type: Growth inhibition
Method: OECD Test Guideline 201

ErC50: 259.76 mg/l
Exposure time: 72 h

Species: Desmodesmus subspicatus (green algae)
Test Type: Growth inhibition
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC: 11 mg/l
Exposure time: 102 d
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: flow-through test
Method: Other guidelines

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 9.6 mg/l
Exposure time: 21 d
reproduction rate
Species: Daphnia magna (Water flea)
Method: Other guidelines

Elimination information (persistence and degradability)

Bioaccumulation : Species: Fish
Exposure time: 1 d
Bioconcentration factor (BCF): 5.4

Biodegradability : Result: Readily biodegradable.

Component: 1,2-Dimethylpropylidene dihydroperoxide

Ecotoxicity effects

Toxicity to fish : LC50: 16 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50: 34 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Method: OECD Test Guideline 202

Toxicity to algae : ErC50: 1.7 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Test Type: Growth inhibition
Method: OECD Test Guideline 201

Elimination information (persistence and degradability)

Biodegradability : Result: Not readily biodegradable.

Component: methyl isopropyl ketone peroxide

Ecotoxicity effects

Toxicity to fish : LC50: 16 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50: 34 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Test Type: semi-static test

Method: OECD Test Guideline 202

Toxicity to algae : ErC50: 1.7 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Test Type: Growth inhibition
Method: OECD Test Guideline 201

Elimination information (persistence and degradability)
Biodegradability : Result: Not readily biodegradable.

Component: 3-Methyl-2-butanone

Ecotoxicity effects
Toxicity to fish : LC50: > 100 mg/l
Exposure time: 96 h
Species: Fish
Test Type: static test
No toxicity at the limit of solubility.

Toxicity to algae : EC50: 44.2 mg/l
Exposure time: 72 h
Species: algae
Test Type: Growth inhibition
Method: OECD Test Guideline 201

13. DISPOSAL CONSIDERATIONS

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Hazardous waste
Dispose of contents/container in accordance with local regulation.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not burn, or use a cutting torch on, the empty drum.
Due to the high risk of contamination recycling/recovery is not recommended.
Follow all warnings even after the container is emptied.

14. TRANSPORT INFORMATION

International Regulation

IATA-DGR
UN/ID No. : UN 3109
Proper shipping name : Organic peroxide type F, liquid
(Bis(1-hydroperoxy-1,2dimethylpropyl) peroxide)
Class : 5.2
Subsidiary risk : HEAT

Packing group	:	Not Assigned
Labels	:	5.2 (HEAT)
Packing instruction (cargo aircraft)	:	570
Packing instruction (passenger aircraft)	:	570
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 3109
Proper shipping name	:	ORGANIC PEROXIDE TYPE F, LIQUID (Bis(1-hydroperoxy-1,2dimethylpropyl) peroxide)
Class	:	5.2
Packing group	:	Not Assigned
Labels	:	5.2
EmS Code	:	F-J, S-R
Marine pollutant	:	yes (Bis(1-hydroperoxy-1,2dimethylpropyl) peroxide)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 3109
Proper shipping name	:	Organic peroxide type F, liquid
	:	(Bis(1-hydroperoxy-1,2dimethylpropyl) peroxide, 27%)
Class	:	5.2
Packing group	:	II
Labels	:	5.2
ERG Code	:	145
Marine pollutant	:	yes (Bis(1-hydroperoxy-1,2dimethylpropyl) peroxide)
Reportable Quantity	:	This product does not contain an environmentally hazardous substance per 49 CFR 172.101, Appendix A.

15. REGULATORY INFORMATION

Notification status

CH INV	:	NO. Not in compliance with the inventory
TSCA	:	NO. This product either contains a chemical substance that is not listed on the public TSCA Inventory or the TSCA Inventory status of the product has not been evaluated.
DSL	:	NO. This product contains the following components that are not on the Canadian DSL nor NDSL.
AICS	:	NO. Not in compliance with the inventory
NZIoC	:	NO. Not in compliance with the inventory
ENCS	:	NO. Not in compliance with the inventory
ISHL	:	NO. Not in compliance with the inventory
KECI	:	NO. Not in compliance with the inventory
PICCS	:	NO. Not in compliance with the inventory
IECSC	:	NO. Not in compliance with the inventory

For explanation of abbreviations, see section 16.

TSCA list	:	Not relevant
OSHA Hazards	:	Organic Peroxide, Toxic by ingestion, Skin sensitizer, Corrosive to skin, Severe eye irritant

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)
Dimethyl phthalate	131-11-3	5000 lbs

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Reactivity Hazard
Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:
Dimethyl phthalate 131-11-3

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
Dimethyl phthalate 131-11-3

This product does not contain any chemicals subject to disclosure and listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307
Dimethyl phthalate 131-11-3

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California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Full text of H-Statements

H225 : Highly flammable liquid and vapor.
H240 : Heating may cause an explosion.
H242 : Heating may cause a fire.
H302 : Harmful if swallowed.
H314 : Causes severe skin burns and eye damage.
H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H332 : Harmful if inhaled.
H336 : May cause drowsiness or dizziness.
H401 : Toxic to aquatic life.

H402	: Harmful to aquatic life.
H411	: Toxic to aquatic life with long lasting effects.

Further information

Notification status explanation

REACH	1907/2006 (EU)
CH INV	Switzerland. New notified substances and declared preparations
TSCA	United States TSCA Inventory
DSL	Canadian Domestic Substances List (DSL)
AICS	Australia Inventory of Chemical Substances (AICS)
NZIoC	New Zealand. Inventory of Chemical Substances
ENCS	Japan. ENCS - Existing and New Chemical Substances Inventory
ISHL	Japan. ISHL - Inventory of Chemical Substances
KECI	Korea. Korean Existing Chemicals Inventory (KECI)
PICCS	Philippines Inventory of Chemicals and Chemical Substances (PICCS)
IECSC	China. Inventory of Existing Chemical Substances in China (IECSC)

Further information

Revision Date	00/00/0000

The information in this material safety data sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The user must determine the appropriate measures that need to be implemented for the use and handling of this product in the c ontext of the user's operations and use of this product. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old,call to make certain that this sheet is current. No warranty is made as to the product’s merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. User must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. Nothing contained herein shall be construed as granting or extending any license under any patent.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.